

REMARKS

The Examiner's comments together with the cited references have been carefully studied. Favorable reconsideration in view of the foregoing amendments and following remarks is respectfully requested.

Claims 1-14 stand rejected. Claim 1 has been amended. Claims 3 and 10 have been cancelled. Claims 1, 2, 4-9, and 12-14 are presently pending in the application. The basis for the amendment to claim 1 can be found in claims 3 and 10 and paragraph [0035] of the specification.

Rejection under 35 U.S.C. 112, second paragraph:

Claims 1-14 stand rejected under 35 U.S.C. 112, second paragraph. Applicants have made necessary amendments to the claims in accordance with the Examiner's comments in the Office Action. These amendments are deemed to now bring the rejected claims into compliance with the cited rules.

Rejection under 35 U.S.C. 102(b) over Zimmerman et al.:

Relying on 35 U.S.C. 102(b), the Examiner rejected claims 1, 6-8, and 10-13 as being anticipated by Zimmerman et al. (4,296,210). Applicants submit that the amendment to claim 1 renders this rejection moot. According to the Examiner:

Example 1 discloses preparing a solution of polyvinylalcohol and wetting agent and nucleic acid (a hydrophilic polymer solution), high shear stirring so that air is entrained in the solution forming bubbles therein, pouring the solution into a mold and heating the substrate for 4 hours at 75°C. The dried shaped particles produced have an open-cell structure (column 1, lines 44-62, and column 3, line 16).

Applicants have amended claim 1 to include the limitations set forth in claim 3 as originally filed. As claim 3 does not stand rejected over Zimmerman et al., it is believed that this rejection is now moot.

Furthermore, Zimmerman et al. fails to disclose exposing a foamed hydrophilic polymer to a source of microwave radiation for 8 minutes or less as presently claimed.

Applicants therefore respectfully request that the Examiner reconsider and withdraw this rejection of the claims under 35 U.S.C. 102(b).

Rejection under 35 U.S.C. 102(b) over Aono:

Relying on 35 U.S.C. 102(b), the Examiner rejected claims 1,2, 6-8, and 10-14 as being anticipated by Aono (5,128,313). Applicants submit that the amendment to claim 1 renders this rejection moot. According to the Examiner:

Aono discloses preparation of an image receiving material comprising a porous dye diffusion-preventing layer, preferably gelatin. The method steps for obtaining the porous layer taught in column 9, lines 3-31 correspond to those set forth in instant claims 1, 2, 6-8 and 10-11. See Example 1, Solutions I and II, column 14, lines 35-54, for preparation of a dye accepting polymer emulsion. A thermal transfer image receiving layer including the porous layer is taught in column 9, lines 55-68.

Applicants have amended claim 1 to include the limitations set forth in claim 3 as originally filed. As claim 3 does not stand rejected over Aono, it is believed that this rejection is now moot.

Furthermore, Aono fails to disclose exposing a foamed hydrophilic polymer to a source of microwave radiation for 8 minutes or less as presently claimed.

Applicants therefore respectfully request that the Examiner reconsider and withdraw this rejection of the claims under 35 U.S.C. 102(b).

Rejection under 35 U.S.C. 102(b) over Morrison:

Relying on 35 U.S.C. 102(b), the Examiner rejected claims 1,2, 6-8, and 10-13 as being anticipated by Morrison (5,382,285). Applicants submit that the amendment to claim 1 renders this rejection moot. According to the Examiner:

Foamed materials having an open-cell structure are disclosed in column 6, lines 19-30. In Example 1, agar and gelatin are dissolved in hot water and the solution is mixed with a surface-active agent and p-xylene, emulsified in a high speed blender and poured into a mold. The gel is frozen and freeze dried. Freeze drying is cited in the instant specification as a method for "treating a foamed hydrophilic solution with sufficient energy and for a sufficiently short time that a polymer having an open-cell structure is formed" (see page 5, line 24, to page 6, line 9).

Applicants have amended claim 1 to include the limitations set forth in claim 3 as originally filed. As claim 3 does not stand rejected over Morrison, it is believed that this rejection is now moot.

Furthermore, Morrison fails to disclose exposing a foamed hydrophilic polymer to a source of microwave radiation for 8 minutes or less as presently claimed. By contrast, Morrison teaches utilizing a freeze drying method to remove the frozen water.

Applicants therefore respectfully request that the Examiner reconsider and withdraw this rejection of the claims under 35 U.S.C. 102(b).

Rejection under 35 U.S.C. 102(b) over WO 02/26872:

Relying on 35 U.S.C. 102(b), the Examiner rejected claims 1, 3-8, and 10-13 as being anticipated by WO 02/26872. Applicants respectfully traverse this rejection as the reference fails to teach all of the claimed limitations. According to the Examiner:

*872 teaches preparation of a hydrophilic open-celled foam by a method comprising dissolving a melamine-formaldehyde precondensate in water, mixing the solution with a curing agent, such as formic acid, an emulsifier and a blowing agent, such as pentane, with vigorous stirring. Comparative Example 1 discloses preparation of the foam of the invention which is then treated with a polyvinylamine in the Inventive Examples. Foaming by irradiation with microwave energy and heating at from 120-300°C for a time period from 1 to 180 minutes to remove volatiles to condition the foam are taught the Abstract and in Comparative Example 1.

WO 02/26872 fails to disclose exposing a foamed hydrophilic polymer solution to a source of microwave radiation for 8 minutes or less as presently claimed. The reference merely teaches the use of microwave energy for foaming the aqueous mixture, not for treating a foamed solution as presently claimed. Relying on US2004/039074 (Hahnle et al.) as a translation of WO 02/26872, Comparative Example 1 indicates that the mixture is foamed in a foaming mold by irradiation with microwave energy at 2.54 GHz. The foam of Hahnle et al. is then dried and subsequently conditioned with a heat treatment. The reference fails to teach conditioning the foam with microwave energy and instead only teaches utilizing microwave energy for producing the foam. By contrast, the instant invention claims utilizing microwave radiation to treat a hydrophilic polymer material after it has been foamed.

Additionally, the reference fails to teach coating a foamed hydrophilic polymer solution onto a support substrate as presently claimed.

Applicants therefore respectfully request that the Examiner reconsider and withdraw this rejection of the claims under 35 U.S.C. 102(b).

Rejection under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) over Boardman et al.:

Relying on 35 U.S.C. 102(b) and 35 U.S.C. 103(a), the Examiner rejected claims 1, 3-9, and 12 as being anticipated or unpatentable over Boardman et al. (4,808,637). Applicants submit that the amendment to claim 1 renders this rejection moot. According to the Examiner:

Boardman et al teach reacting acrylic acid, an alkali metal salt of carbonic acid, aluminum acetate, sodium sulfate and water using microwave radiation as the heat source to obtain superabsorbent polyacrylates (column 2, lines 39-56). The alkali metal salt of carbonic acid can be sodium or potassium carbonate or bicarbonate, known for use as a blowing agent (column 3, lines 59-64). Boardman et al teach that subjecting the aqueous mixture to ultra high frequency radiation in the form of microwaves to achieve the reaction temperature provides that the reaction takes place substantially simultaneously throughout the reaction mixture (column 3, lines 1-5). Boardman et al teach the temperatures and time periods i.e., at least 70°C and at least one minute and usually less than 2 minutes for application of microwave radiation (column 3, lines 52-55, column 4, line 55, to column 5, line 11). Boardman et al describe the product of the disclosed process as a foam that frequently resembles a "pancake" or foamed sheet (column 3, lines 20-42). Boardman et al do not specifically mention whether the foam has an open-celled structure. The method taught by Boardman et al is considered to anticipate the instantly claimed method wherein the foamed products have an open-celled structure.

Applicants have amended claim 1 to include the limitations set forth in claim 10 as originally filed. As claim 10 does not stand rejected over Boardman et al., it is believed that this rejection is now moot.

Additionally, Boardman et al. fails to disclose an open-cell structure. Referring to paragraphs [0029] – [0030] of the specification as originally filed, open-cell structure indicates that the structure is surface accessible. Some of the voids or cavities making up the network are exposed on the surface of the polymer foam material. These exposed voids or cavities allow for the rapid uptake of ink. By contrast, Boardman et al. discloses an ionically cross-linked composition that

resembles a "pancake." The foam of Boardman et al. can be ground into a superabsorbent powder.

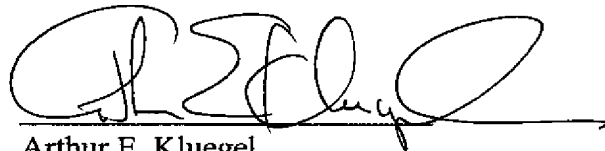
As Boardman et al. fails to teach or suggest coating a foamed hydrophilic polymer solution onto a support substrate to form a coated support substrate or an open-cell structure as presently claimed, it is respectfully requested that this rejection be reconsidered and withdrawn.

Applicants have reviewed the prior art made of record and believe that singly or in any suitable combination, they do not render Applicants' claimed invention unpatentable.

In view of the foregoing remarks and amendment, the claims 1, 2, 4-9 and 12-14 are now deemed allowable and such favorable action is courteously solicited.

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'A. E. Kluegel', written over a horizontal line.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.